

Morrison Planetarium

Sky Shows

Giants of the Sun explores the four largest planets of our solar system - Jupiter, Saturn, Uranus and Neptune and details some of the mysteries that may be solved when Voyager 2 establishes contact with Uranus in January of 1986. *Giants of the Sun* can be seen through December 8.

The Christmas Star, the planetarium's annual holiday show, opens December 13. The show will explore the glittering star clusters, swirling clouds of color and tattered shells of exploded suns that make up the most beautiful skies of the year. And, once again, the magic, mystery and special meaning of the legend of the Christmas Star will be examined. *The Christmas Star* can be seen through January 5, 1986.

Sky shows can be seen daily (except Christmas Day) on weekdays at 2:00 p.m. and weekends and New Year's Day at 1:00, 2:00, 3:00, and 4:00 p.m. Members are reminded that they should be at the planetarium box office at least ten minutes before showtime in order to be assured of getting seats.

Exploring the Skies of the Season gives everyone a chance to see the night skies of December as they appear from San Francisco whether the skies are cloudy or clear. Shows are on weekends at 12 noon.

The planetarium offers a special holiday schedule of shows on December 23, 24, 26, 27, 30 and 31: *Exploring the Skies of the Season* will be presented daily at 12:30 p.m. and *The Christmas Star* will be offered at 2:00 and 3:30 p.m. There will not be planetarium shows on December 25.

Laserium

Laserium offers the latest in high-tech entertainment using the powerful 1-watt krypton laser and Morrison Planetarium's new stereo sound system.

Crystal Odyssey is a program of classical music by Bach, Saint-Saens, Grieg, Mussorgsky and others against a backdrop of lyrical weaving lasers. *Crystal Odyssey* is presented on Saturdays and Sundays at 5:00 p.m. Tickets are \$4 for adults and \$3 for seniors and children 6-12.

Led Zeppelin: In The Beginning, featuring hits from Led Zeppelin's first four albums, is presented Thursday through Sunday at 9:00 p.m. with late shows on Friday and Saturday at 10:30 p.m.

Dark Side of the Moon is an exciting presentation of the music of Pink Floyd. Shows are Friday through Sunday at 7:30 p.m. You can bring your FM Walkman type radio to all Laserium concerts and choose your own listening volume.

Tickets for *Led Zeppelin* and *Dark Side of the Moon* are \$5 for adults and \$3 for seniors and children 6-12. Children under 6 are not admitted to Laserium shows. There are discount prices for groups of ten or more. Members are reminded that their complimentary planetarium passes are not valid for Laserium shows. Tickets are available one half hour before showtime at the planetarium. Show titles are subject to change without notice. For Laserium information call 221-0168.

Special Lectures

Tradition and Development in Ladakh: An Ecological Perspective

Helena Norberg-Hodge

Thursday, December 5 **8:00 p.m.**
Morrison Auditorium **Free**

Situated in northernmost India, Ladakh is home to one of the purest remaining examples of Tibetan Buddhist culture. Isolated from the rest of the world for a thousand years, Ladakh has recently been exposed to outside influences, and centuries old traditions have come under threat. Ms. Norberg-Hodge was one of the first outsiders to visit Ladakh when the area was opened to foreigners in 1974. She is currently Director of the Ladakh Project, which is working to encourage respect of age old traditions, while offering means of raising living standards which do not cause social or environmental imbalance. Ms. Norberg-Hodge's slide/lecture will examine Ladakh's past and present and the importance of preserving what is left of the world's cultural diversity.

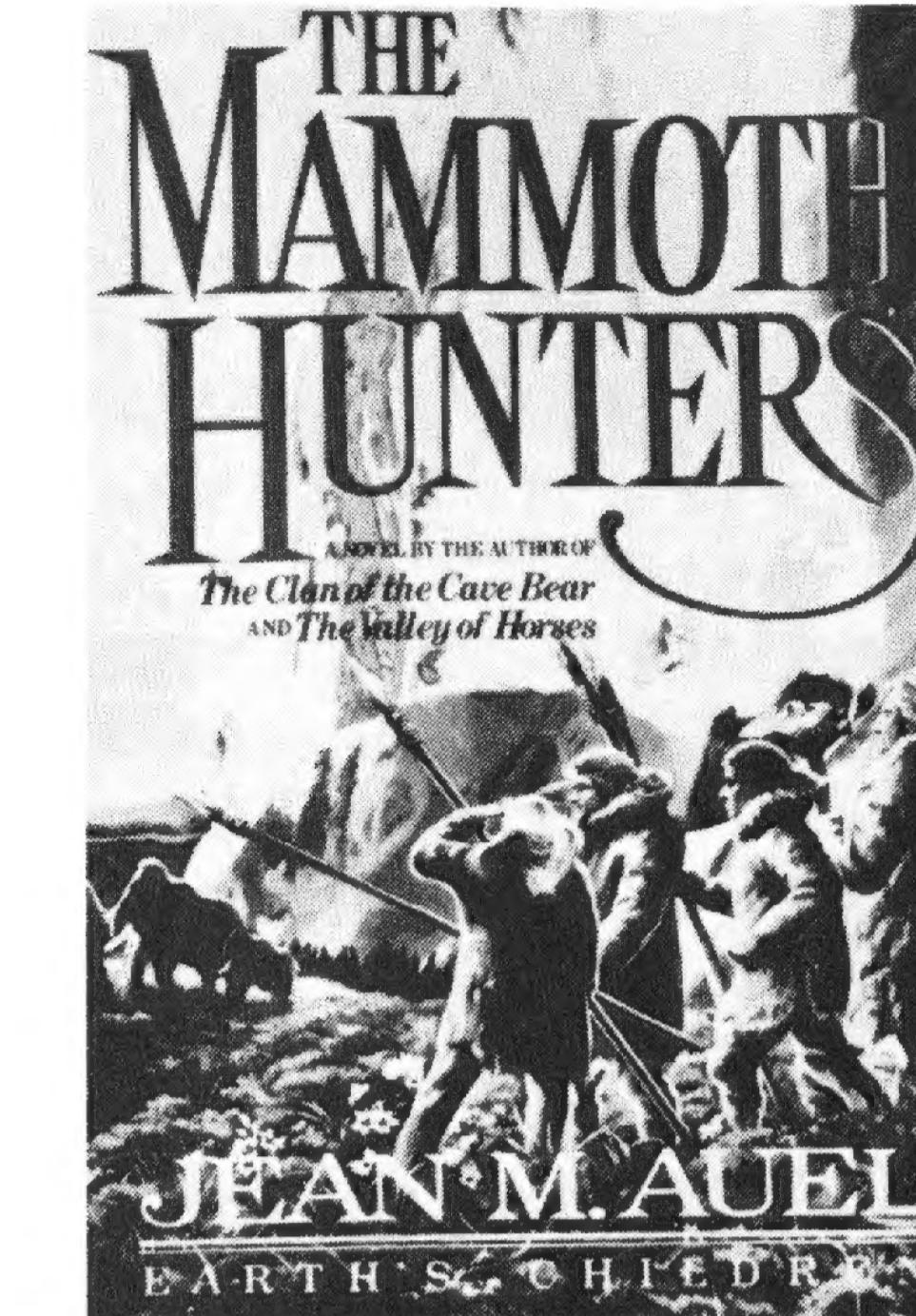
Islands

Frans Lanting

Tuesday, December 10 **8:00 p.m.**
Morrison Auditorium **Free**

Naturalist, photographer Frans Lanting will share his fascination with islands in this slide/lecture presentation. Lanting will present images, insights and anecdotes from his latest work *Islands of the West from Baja to Vancouver*. His photographs will explore the spectacular havens for wildlife on Ano Nuevo and the Farallons, the renaissance of art and culture in the Canadian Northwest, and the rugged expansiveness of Mexico's Isla Cedros.

Frans Lanting's photographs have won international acclaim for their creativity and keen insight into natural history. His work has appeared in *Audubon*, *Natural History*, *National Geographic*, *Smithsonian* and *Pacific Discovery* magazines.



The Mammoth Hunters

Jean M. Auel

Monday, December 16 **8:00 p.m.**
Morrison Auditorium **Free**

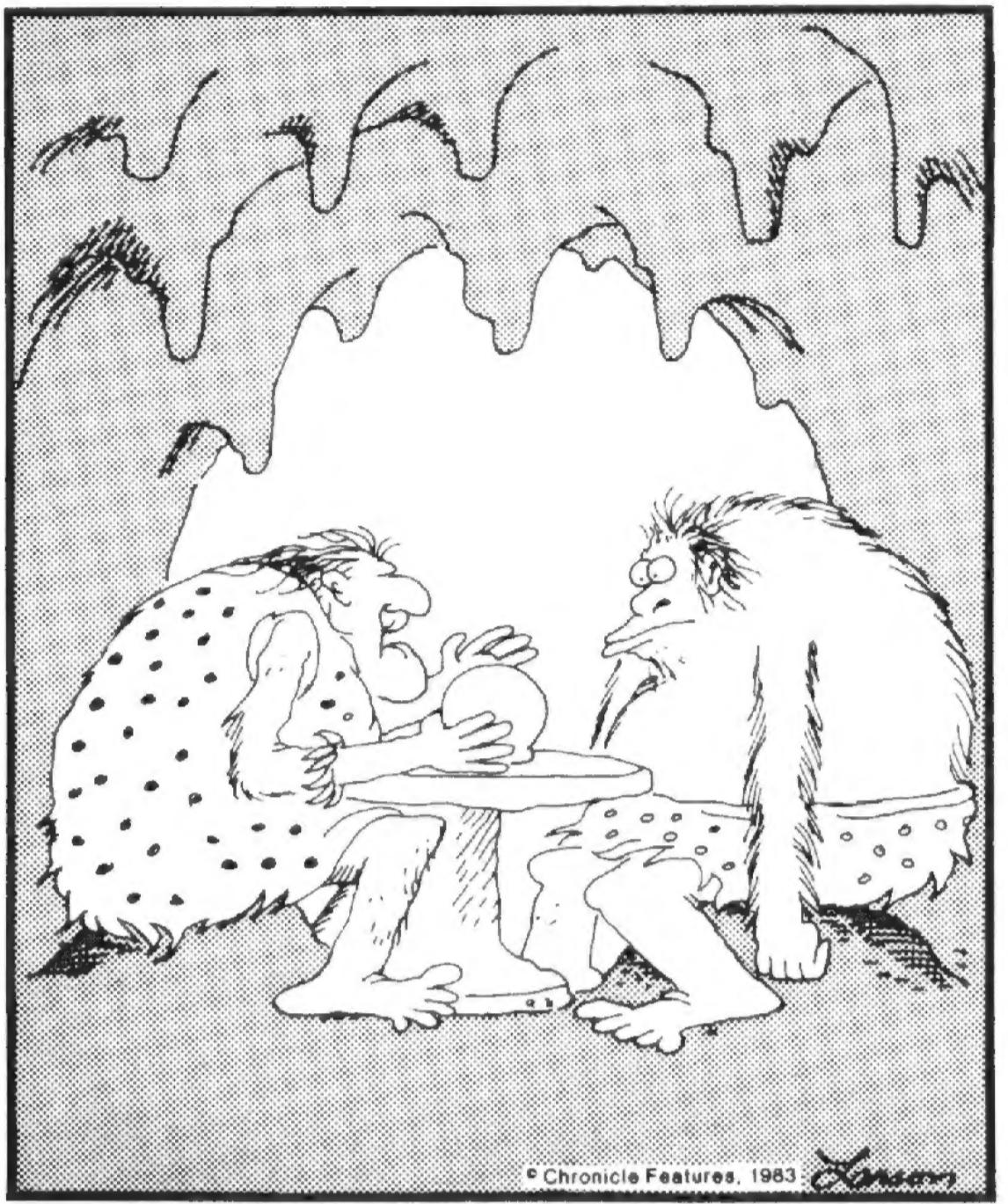
Jean Auel created a literary sensation in 1980 with the publication of her book *Clan of the Cave Bear*. This first novel by an unknown writer presented a new vision of our past told with warmth, humanity and the skill of a great storyteller. The saga of the Earth's Children Series continues with *The Mammoth Hunters*, a novel based on Cro Magnon man. As she did for her first two books, Ms. Auel conducted a thorough survey of the scientific evidence, the artifacts and the art of this early period of human history, weaving it into a fascinating tale of man's early life on Earth. She will share her experiences of extensive travel and exhaustive research that led to this most recent look at our early ancestors. Book signing to follow lecture.

Diet and Human Evolution: From Foraging to Fast Foods

Sunday, February 9, 1986
Zellerbach Hall, U.C. Berkeley

This one day symposium features Dr. Mary D. Leakey and other distinguished anthropologists from throughout the United States. Tickets prices range from \$15 for students to \$500 for patrons. For information call (415) 752-3733.

Special Exhibits



"I see your little, petrified skull... labeled and resting on a shelf somewhere."

The Far Side of Science opens December 1! Cartoonist Gary Larson has captured the hearts and imaginations of scientists, students and fun-loving people everywhere with his wry view of our world. More than 300 original cartoons from his syndicated feature "The Far Side" can be seen in this first ever show of his work. Wise cows, fun-loving rattlesnakes, thoughtful cavemen and indignant elephants offer a view of nature so askew that it comes around full turn to hit right on the mark. Larson's creations will be displayed side-by-side with specimens from the Academy's vast scientific collections as proof that nature is at least as complex and bizarre as Larson's own perception of it. The Far Side of Science will continue through June 22 in Hohfeld Gallery I and II.

Be sure not to miss "The Run to the Far Side" a nationally sanctioned 5K and 10K run on December 1 that will mark the opening of this exhibition. For details call the Run Office at (415) 752-3733.

Christmas Trees of the World will be on view in Cowell Hall from December 9 through the end of the month to put you in a holiday mood. Twelve large trees will be decorated in traditional holiday motifs by members of different ethnic groups from the

Bay Area, Switzerland, Poland, Scotland, Japan, Russia, Armenia, Sweden, the Ukraine, Lithuania, Hungary, American Indian and American Calico will be represented by festive trees laden with unique holiday ornaments. The trees will create a beautiful backdrop for the Twelve Trees of Christmas celebration to be held at the Natural History Museum and Aquarium on December 9. Details can be found in this Newsletter next to the Members' Meeting announcement.

Under The Canopy, uses color photographs and text to tell of the plight of the rainforests of the world. Under the Canopy continues in Cowell Hall Gallery through December.

The Pribilof Islands, a group of islands off the southwest coast of Alaska, are dramatically portrayed in color photographs by Kevin Schafer. Although isolated and stark, these small islands are home to huge numbers of marine mammals and sea birds. The rich variety of life documented in this exhibition can be seen in Lower Cowell Gallery through April.

Inside the Academy

Staff scientists continue to do research and to curate the scientific collections to insure that the California Academy of Sciences maintains its ranking as one of the foremost scientific institutions in the world.

The Department of Aquatic Biology's director John McCosker lectured at Cornell University, U.C. Davis and the Smithsonian on his shark research and published a paper on two new species of eels.

The Botany Department sent several scientists on month-long excursions. Frank Almeda studied the flora on Namibia, Bruce Bartholomew traveled with two scientists from the Republic of China collecting plants in Mexico, and Dennis Breedlove did research in three of the largest herbaria in Europe -Madrid, Spain and London.

In the **Entomology Department** Chairman Wojciech Pulawski spent two weeks in Arizona collecting wasps, especially *Tachysphex*, and Ed Ross traveled throughout the Southwest continuing his work. Paul Arnaud completed an important volume of 26 papers on Horseflies (Tabanidae) which is dedicated to Academy Fellow Cornelius B. Philip.

Geology Department Chairman Peter Rodda finished the final report of the 2 year Cottonwood project, making recommendations for preservation or salvage of the fossils of northwestern Sacramento Valley.

The Ichthyology Department finished the first phase on the preparation of a database for all generic names of fossils and recent fishes; the finished work will serve as a major reference for all ichthyologists.

Invertebrate Zoology offices were quiet with many scientists pursuing their research in the field. Terry Gosliner journeyed to Baja California to continue his research on intertidal invertebrates, especially nudibranchs. Bob Van Syoc spent a week diving near the Channel Islands to upgrade the department's collection in that locality. Daphne Fautin traveled in New Guinea and Malaysia to continue her studies of anemone fishes and invertebrate reproduction. While in New Guinea, Dr. Fautin stayed at the Christensen Research Institute, becoming the first staff scientist to make use of this excellent new research facility.

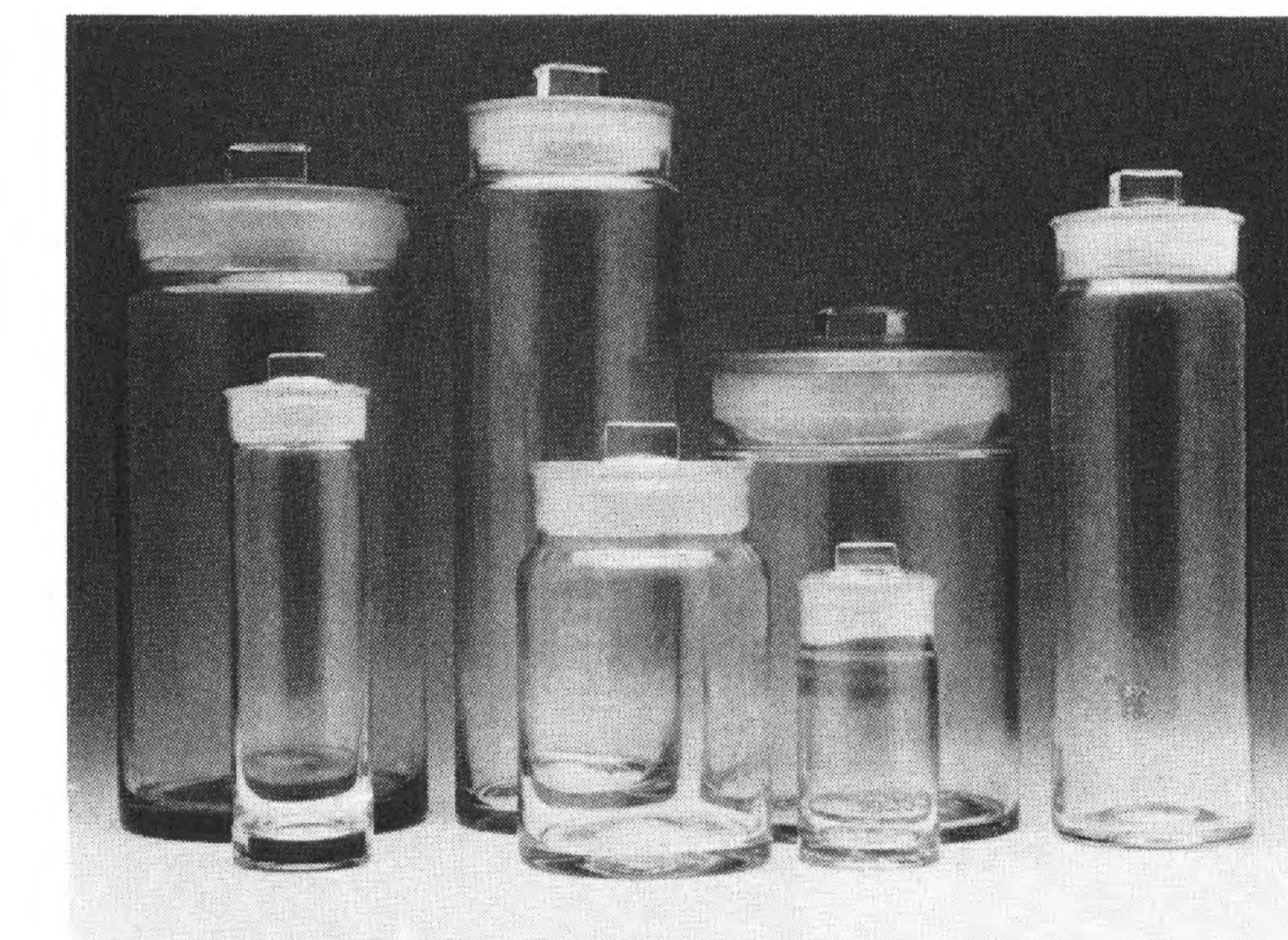
In the Herpetology Department, Alan Levitan, who is Executive Director of the Pacific Division of the American Association for the Advancement of Science, attended the Arctic Science Conference in Fairbanks.

Mammalogy and Ornithology was very busy as Luis Baptista took his findings on avian dialects to West Germany, where he had been invited to speak in several international symposia and graduate seminars. Steve Bailey observed bird and animal behavior during a trip to the Galapagos Islands.

The opportunity for this research activity to continue is due in part to three National Science Foundation grants totaling almost one million dollars that were recently awarded to the Entomology, Ichthyology and Invertebrate Zoology Departments.

Several major gifts were recently given to the collections of the Anthropology Department. Elizabeth McFarland donated the outstanding collection of Native American artifacts of her father, Jacob Bred. This 19th and early 20th century collection includes early Navajo rugs, baskets and early photographs including some extremely rare photographs of Hopi ceremonies and architecture. The Department also received a Micronesian canoe effigy figure that was used as a magical weather amulet. John MacInnis donated this fascinating piece that will be on permanent display in Wattis Hall of Man. Russell Curtis and John Tamag Libian were instrumental in securing on long term loan a rare piece of stone money from Yap that will also be on display in Wattis Hall of Man.

Mr. and Mrs. Don Fellers donated the final portion of the Rolo Beck Pacific materials that have been such an important addition to the Pacific collection and to the Academy's own archives.



The Herpetology Department offers an easy solution to last minute holiday shopping. A limited number of hand blown antique specimen jars from the turn of the century are being offered for sale. The jars have individually ground lids and range in size from 8 to 150 ounces and make distinctive cannister sets or attractive individual gifts filled with holiday treats. For information send a self-addressed, stamped envelope to Jens Vindum, California Academy of Sciences, Golden Gate Park, San Francisco, CA 94118 or call (415) 221-5100, ext. 218.

Seminars for high school science teachers will be offered beginning January 1986. The Education Department and Fellows of the Academy will present the most current scientific research topics in the field of biology. The 1986 series will take place on three Saturdays during the spring. For information call Susan Douglas at (415) 668-7376.

The Junior Academy will conduct field trips, including whale-watching and elephant seal tours, and one day workshops for children 6 - 16 during the holiday break. For information call (415) 668-7376.

The following scientific papers have recently been published by the California Academy of Sciences:

Proceedings, v. 43: Contents

Proceedings, v. 43: Index

Proceedings, v. 43: Instructions to Authors

Proceedings, v. 44: 1 *Cosmochilus cardinalis*, a new cyprinid fish from the Lancang-Jiang or Mekon River in Yunnan Province, China, by Xin-Luo Chu and Tyson R. Roberts.

Proceedings, v. 44: 2 Two new genera and two new species of deepwater western Atlantic worm eels (Pisces: Ophichthidae), by John E. McCosker.

Proceedings, v. 44: 3 A review of the fishes of the agonid genus *Xeneretmus* Gilbert, by Steven L. Leipertz.

Occasional Papers, 143 Catalog of non-asteroid, non-mollusk type-specimens in the department of invertebrate zoology, California Academy of Sciences, by Daphne Gail Fautin and Barbara Weitbrecht.

If you are interested in receiving copies of these publications, please contact Kate Ulrich at 221-5100, ext 272 on weekday mornings.

A membership in the California Academy of Sciences is a gift that will be enjoyed all year long. For information call the Membership Office at (415) 668-7379.

T raditional Arts

The Phyllis Wattis Traditional Arts Series

reflects the Bay Area's exciting blend of colorful cultures and ethnic groups from around the world. Every Saturday at 1:00 p.m. one group shares some aspect of its cultural heritage with visitors to the Natural History Museum and Aquarium. These programs are funded by a grant from the Paul L. and Phyllis Wattis Foundation.

December 7 - Purnima Jha performs *Katbak* - North Indian classical dance based on Vedic legend.

December 28 - Storyteller Orunamamu weaves her magic with a variety of folk tales. During the holiday season, be sure to bring the family to see the Christmas Trees of the World exhibit in Cowell Hall, December 9 through January 1.

T he Month At A Glance

DECEMBER

1 **The Far Side of Science** opens

1 **The Run to the Far Side**

5 Lecture - Ladakh by Helena Norberg-Hodge

7 Traditional Arts - North Indian classical dance

8 Last day of Giants of the Sun

9 **Twelve Trees of Christmas festivities**

10 Lecture - Islands by Franz Lanting

11 Members' Meeting

12 Members' Meeting

13 **The Christmas Star** opens in planetarium

16 Lecture - The Mammoth Hunters by Jean Auel

28 Traditional Arts - Storyteller Orunamamu

A dult Education and Travel

The Adult Education Office offers a wide variety of classes and study tours on a wide variety of natural history topics. For information call (415) 221-4716.

A Walk with Margot Patterson Doss at Fort Mason

Wednesday, December 4 10:00 a.m. to Noon
\$10 members, \$15 non-members

A look at some of San Francisco's earliest history along historic old Company Street, the current site of Fort Mason.

Tides Turn, Salmon Spawn

Thursday, December 5 8:30 a.m. to 4:30 p.m.
\$25 members, \$35 non-members includes transportation, instruction and refreshments
Aquatic biologist Lloyd Gomez will lead members on this tour of Warm Springs Dam, the Army Corps of Engineers' largest project in the state, and the fascinating Bay Model in Sausalito, where a working miniature of the bay and delta is used to study tides, currents and siltation.

Mask Making Workshop

December 9, 11, 16, & 18 7:00 - 9:30 p.m.
\$50 members, \$60 non-members includes all materials

Mask maker Gloria Nusse who has created masterpieces for the San Francisco Opera, ACT and the Tubes will help you cast a replica of your own face in this enriching and fun-filled workshop.

Academy Expeditions

Plan your 1986 travels now. There are diverse destinations with adventure and education for every traveler. For information call the Academy Travel Office at (415) 221-5100.

1986 Expeditions include:

THE NATURAL HISTORY OF COSTA RICA

February 5 - 19
\$2295 including air fare from Los Angeles

HALLEY'S COMET AND GAMEWATCHING IN NAMIBIA AND BOTSWANA

April 4 - 21
\$3298 land and \$1587 air from New York
WILDERNESS GRAND CANYON
April 6 - 11
\$545 plus air fare

ARIZONA IN THE SPRING: The Sonoran Desert and the Chiricahuas

April 12 - 20
\$1290 plus \$170 air fare

ANTIQUITIES AND TALL SHIPS: A cruise through the Mediterranean

May 24 - June 8
\$4945 to \$8445 including air fare

KENYA ADVENTURE SAFARI

June 4 - 18
\$1745 land plus \$1400 air fare

A NATURALIST'S AUSTRALIA

August 14 - September 7
\$3100 land plus \$1816 air fare

GRAND CANYON WHITEWATER EXPEDITION

August 17 - 31
\$1396 plus air fare

ALASKAN ODYSSEY CRUISE

August 30 - September 11
\$2810 - \$3990 cruise plus air fare

AMERICA'S OWN: Chesapeake Bay and the Smithsonian

September 30 - October 15
\$2400 - \$2542 plus \$298 air fare

JUNGLE RIVERS OF SOUTH AMERICA: The Orinoco and the Amazon

September 30 - October 15
\$3990 to \$8690 plus \$1220 air fare

A WILDLIFE SAFARI TO INDIA AND NEPAL

October 28 - November 20
\$3452 plus \$1805 air fare

ARCHAEOLOGICAL ADVENTURE: El Tajin, Central Mexico and Oaxaca

November 2 - 17
\$1790 plus \$390 air fare

December Members' Meeting

Dates & Times

Matinee, 2:00 p.m., Wednesday,

December 11

Evenings, 8:00 p.m., Wednesday and

Thursday, December 11 and 12

Place

Morrison Auditorium

Speaker

Pat O'Hara

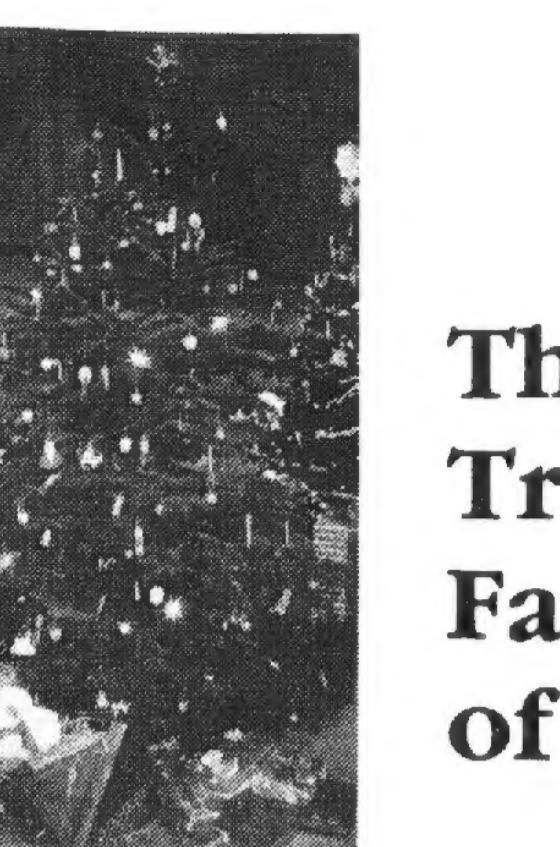
Subject

Exploring the National Parks of the
Northwest

The National Parks of the Northwest encompass some of the most spectacular scenery to be found anywhere in the world. The magnificent forests and geologic formations of Yosemite, Yellowstone, Olympic and Mt. Rainier National Parks are home to a rich variety of plant and animal life. Pat O'Hara has spent years photographing these incomparable parks for *National Geographic*, *National Wildlife* and *Geo* magazines and countless other publications and will share his experiences and photographs with members during these three meetings.

Your membership card admits you through the Wattis Hall or Cowell Hall entrances for the afternoon program or through the Cowell Hall entrance for the evening meetings. Please be prepared to show your card again at the auditorium door for the matinee presentation since the museum is open to the public at that time.

Sneak Preview: January 8 and 9, Corrado Letta will present "The Peoples and Cultures of Indonesia."



The Academy's Traditional Family Event of the Year

The Twelve Trees of Christmas

Monday, December 9 6:00-9:00 p.m.

Come one! Come all! This gala holiday event for members and their families will be a festive beginning for the holiday season. Beginning at 6:00 p.m. members are invited to stroll among the beautifully decorated Christmas trees in Cowell Hall and find inspiration for decorating their own tree. Colorful ornaments of every description from twelve different cultures include delicate origami birds, Swedish straw figures and *Blapsushka* - a candy-filled noisemaker from Russia. Special entertainment will delight everyone in the family.

Evening festivities include:

6:00 - 7:00 Cowell Hall The festive sounds of the Harbinger Consort, a five piece brass ensemble

6:30 - 6:50 Wattis Hall Performance by the delightful Hartman Puppet Theater

7:00 - 7:30 African Hall The San Francisco Girls Chorus sings holiday favorites

7:30 - 8:00 Wattis Hall Hilarious highjinks and juggling antics of the High Street Circus

8:00 - 8:20 Wattis Hall The Hartman Puppet Theater will weave tales with a holiday mood

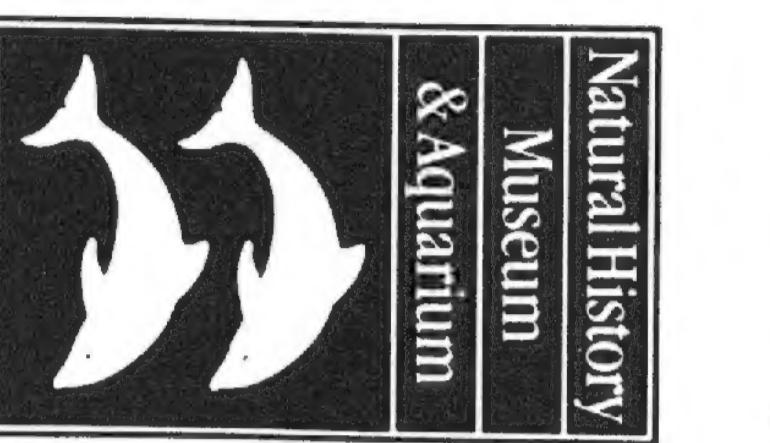
8:30 Cowell Hall The Academy's own Santa presents a "Science in Action" program. His elves will pass out treats to all good children at the conclusion of the program.

Throughout the evening from 6 until 9 p.m. the Nature Company will be open for holiday shopping and will serve complimentary hot cider for children and hot mulled wine for adults.

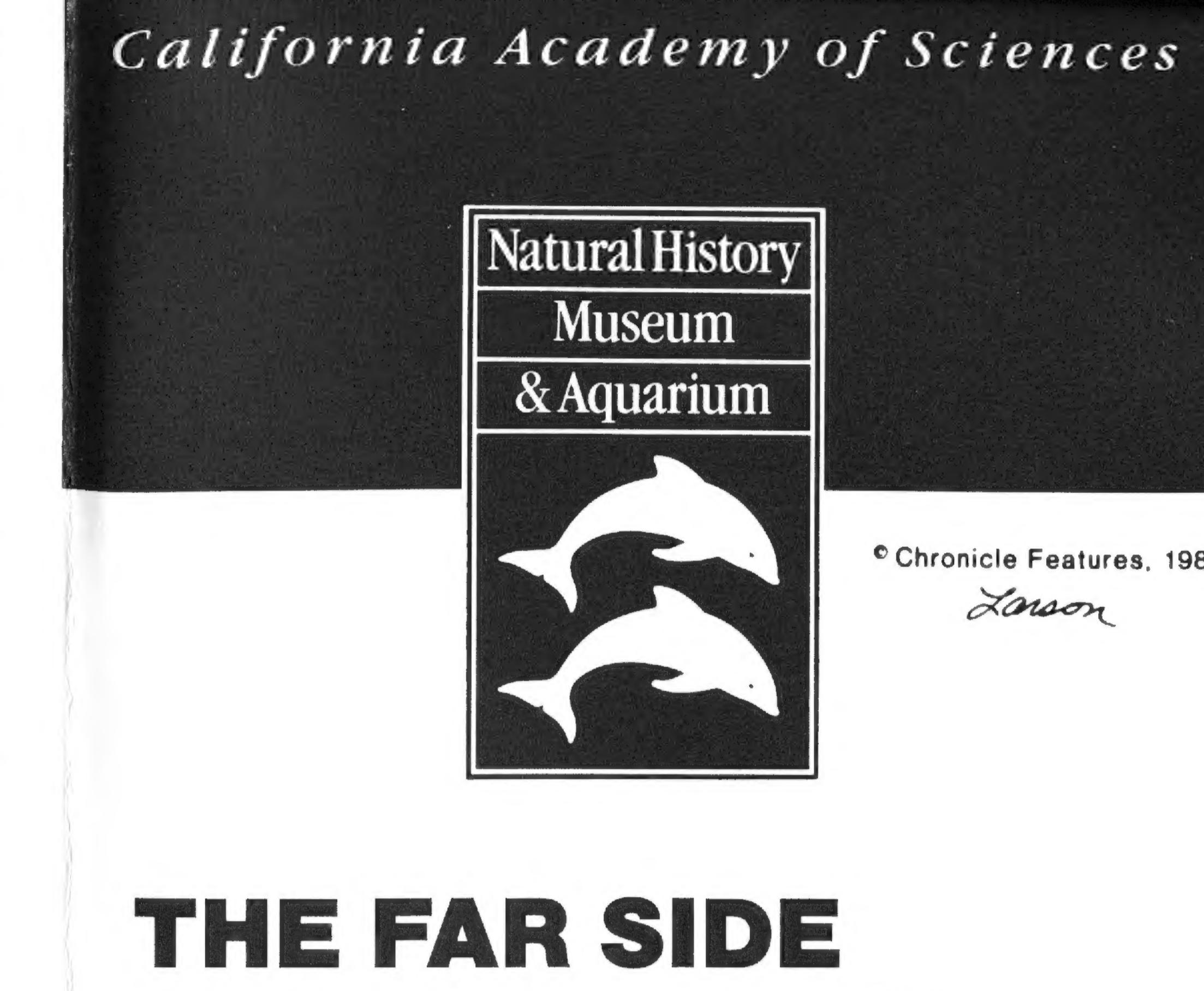
The cost for the evening is \$2 for adults and \$1 for children 17 and under. Admission will be paid at the door that night.

Golden Gate Park
San Francisco, California 94118-9961
(415) 221-5100

No. 551
Time Dated Material

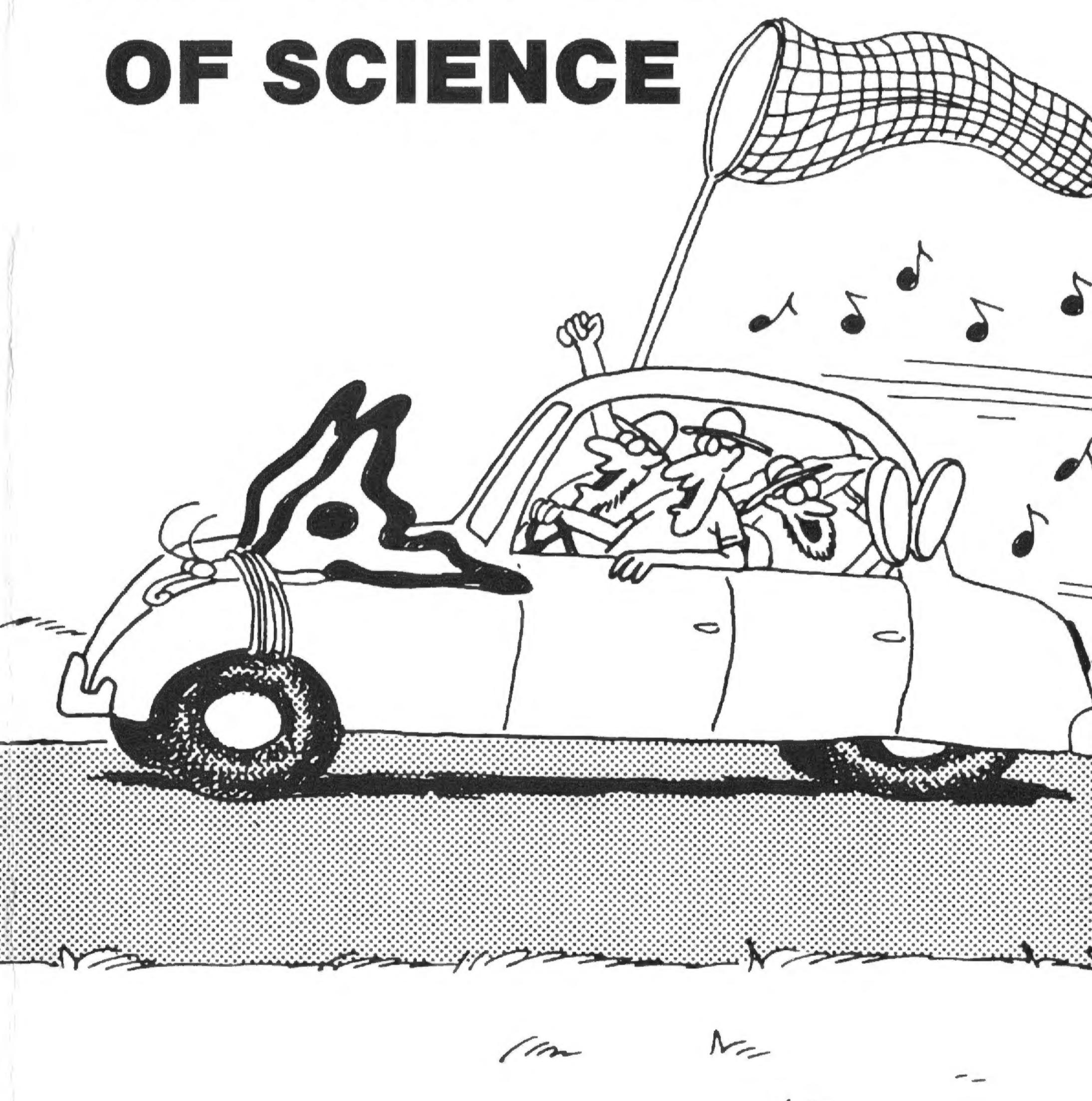


*Open every day of the year
from 10 until 5*



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Larson

THE FAR SIDE OF SCIENCE



NEWSLETTER

December 1985